



Velo-city 2022

Cycling the Change

Ljubljana, Slovenia 14-17 June 2022

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ITS solutions that make cycling a breeze!



URBAN MOBILITY INNOVATION

Intelligent transport system solutions have first been applied to cars and public transport. The fact that they are now being implemented to digitalise cycling infrastructure and ease cyclists' journeys is another proof that the cycling sector is gaining recognition and importance. Join this session to learn how Denmark, The Netherlands, Germany and Finland are using the latest ITS innovations to make cycling a breeze!

Simon Sølvason

City of Copenhagen

📍 Denmark

💬 Spoiling Copenhagen's cyclists with longer green time, green waves and more ITS

Lisanne Slotboom

Mobilitätszentrale Baden-Württemberg

📍 Germany

💬 Digitizing Cycling Infrastructure – one system to enhance easier, data based cycle planning and implementing new services

Imke Lansky

Arup

📍 The Netherlands

💬 Weather-based bicycle count forecasts on signalized junctions: a use-case in Scheveningen, The Netherlands using machine learning

Wietske Doornbos

City of Utrecht

📍 The Netherlands

💬 Why the hurry? Innovatively slowing down cyclists to decrease experienced crowding

Niko Palo

Ramboll

📍 Finland

💬 Wayfinding - a way forward

Jure Pirc

Norwegian ITS Q-free

📍 Slovenia

🕒 WEDNESDAY, JUNE 15, 2022 - 12.15-13.15 CEST



ADD TO CALENDAR

ITS solutions that make cycling a breeze!

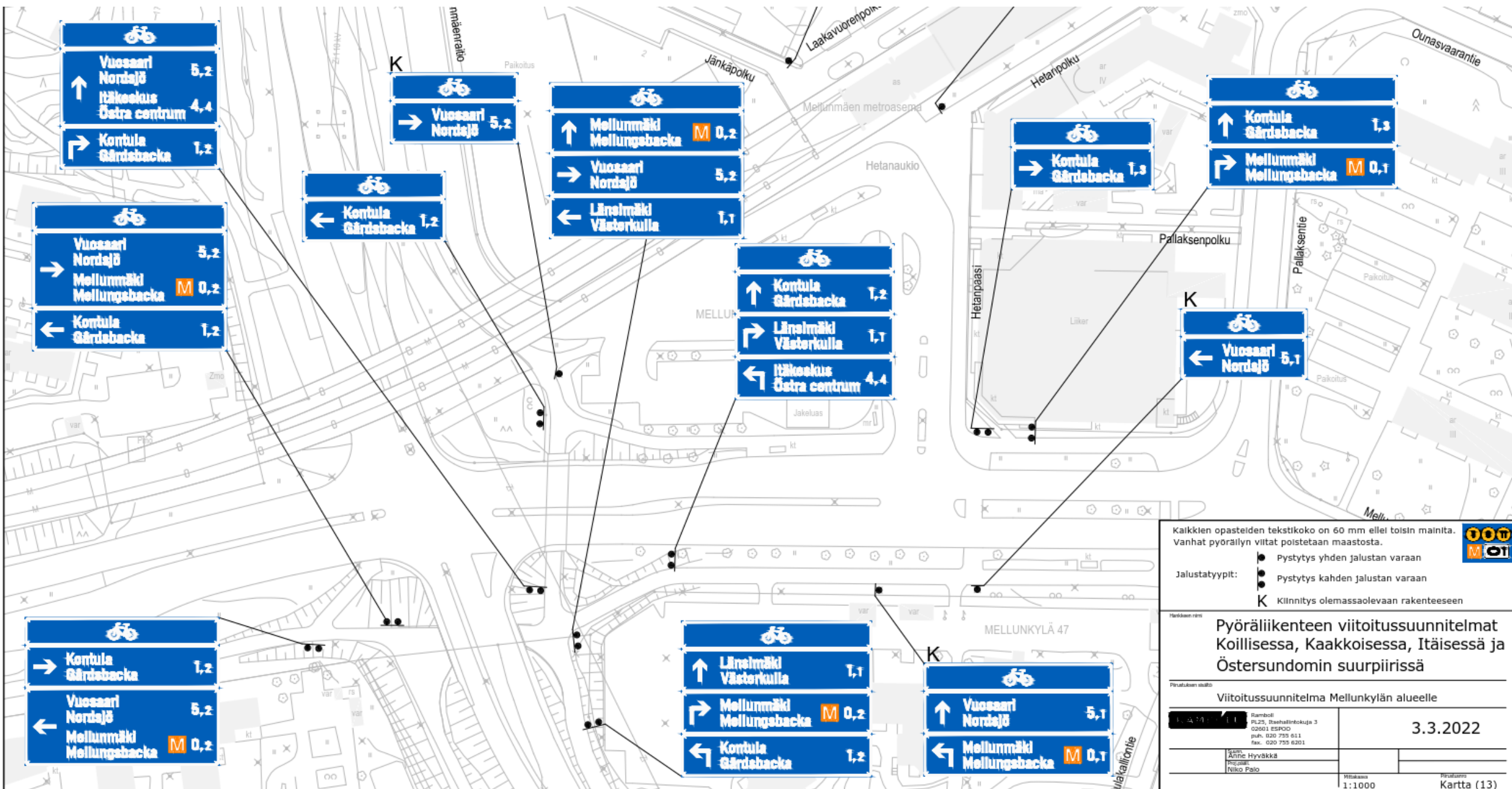
- **Simon Solvason** is a traffic engineer and team coordinator at the city of Copenhagen
 - Spoiling Copenhagns cyclists with **longer green time**, green waves and more ITS
- **Lisanne Slotboom** is now working in the Mobilitaetszentrale in Baden-Wuerttemberg
 - **Digitizing cycling data** and the application RadVIS
- **Imke Lansky** is an ambitious geospatial analyst based in Amsterdam
 - **Weather-based bicycle count forecasts on signalized junctions using machine learning**
- **Wietske Doornbos** is a policy advisor at the city of Utrecht
 - How to **decrease bicycle traffic jams** on cycle paths and on cycling highways.
 - How to **decrease speeding of cyclists** and display educational messages to the cyclists when going too fast on a cycling route.

Wayfinding – a way forward









Kaikkien opasteiden tekstikoko on 60 mm ellei toisin mainita.
Vanhat pyöräilyn viitat poistetaan maastosta.

- Jalustatyypit:
- Pystytys yhden jalustan varaan
 - Pystytys kahden jalustan varaan
 - K Kiinnitys olemassaolevaan rakenteeseen

Pyöräiliikenteen viitoitussuunnitelmat Koillisessa, Kaakkoisessa, Itäisessä ja Östersundomin suurpiirissä

Viitoitussuunnitelma Mellunkylän alueelle

Yhteystiedot:
Ramboll
PL 29, Itäkeskuskuja 3
02601 ESPOO
puh. 020 755 611
fax. 020 755 6201

Maan:
Anne Hyvärinen
Päivä:
Niko Palo

3.3.2022

1:1000

Kartta (13)

Challenge with growing city



10 years



Challenge in process

Company a

- Project 1
- Project 2



Company b

- Project 1
- Project 2
- Project 3



Company c

- Project 1
- Project 2

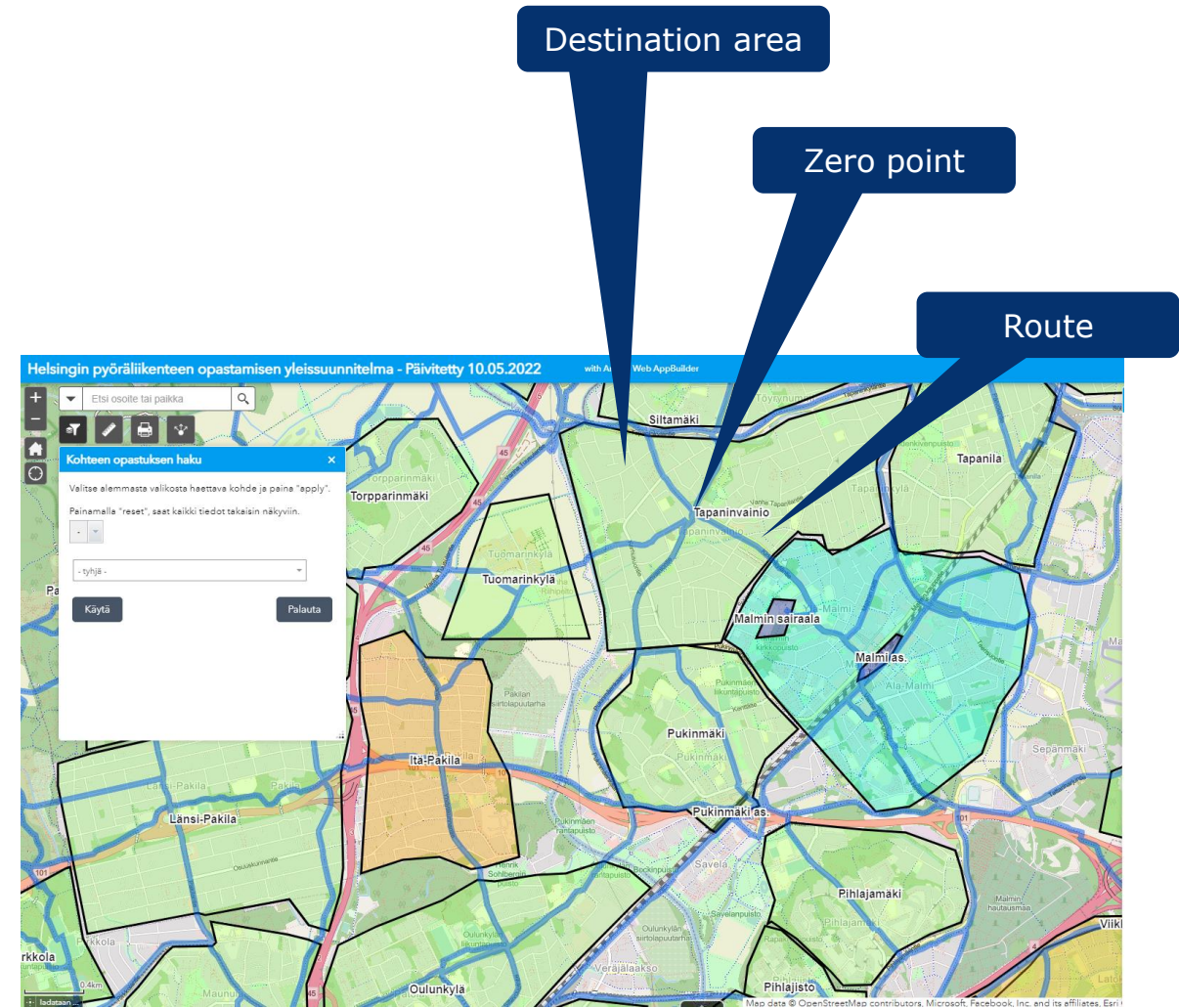


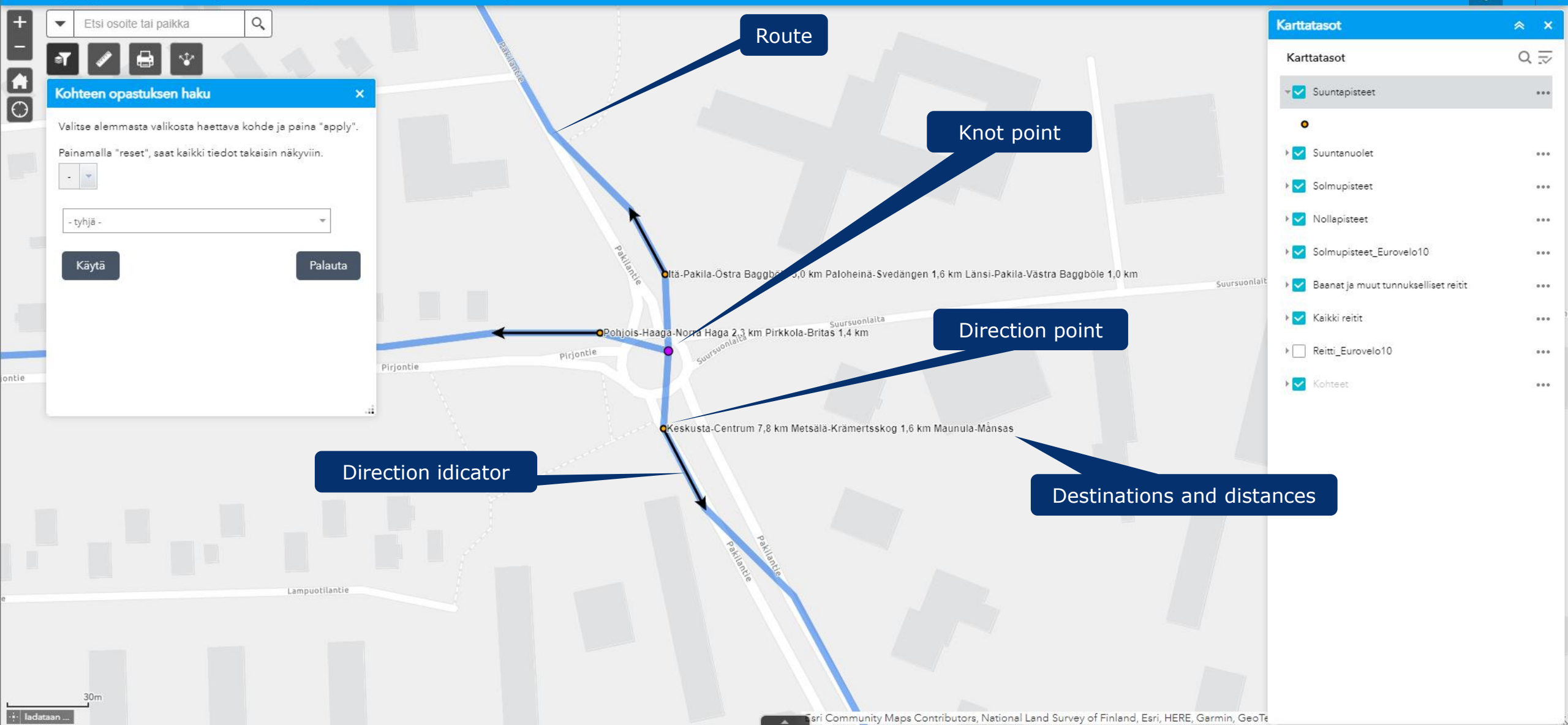
One
Wayfinding



General plan of wayfinding

- GIS data
- Master plan & Up-datable archive
 - Destinations & zero points
 - Routes
 - Knot points
 - Destinations at the knot points
 - Distances and directions to every destination
 - Symboled routes
- General plan is open to everyone
 - <https://rambollglobal.maps.arcgis.com/apps/webappviewer/index.html?id=e5d064db9a1f44f2825de8f7dcab0647>





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Etsi osoite tai paikka

Kohteen opastuksen haku

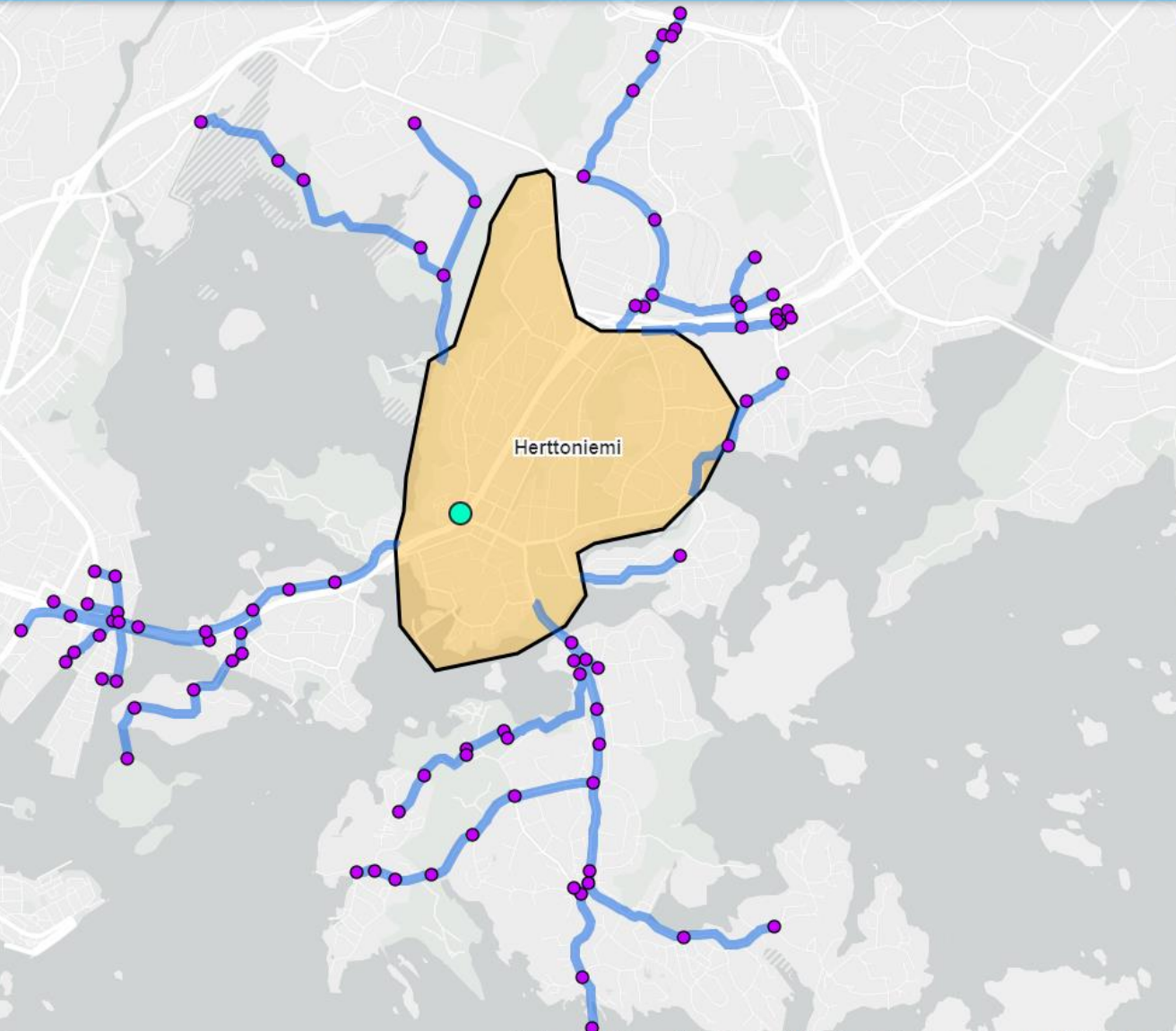
Valitse alemmasta valikosta haettava kohde ja paina "apply".

Painamalla "reset", saat kaikki tiedot takaisin näkyviin.

Herttoniemi-Hertonäs

Käytä

Palauta



Karttatasot

Karttatasot

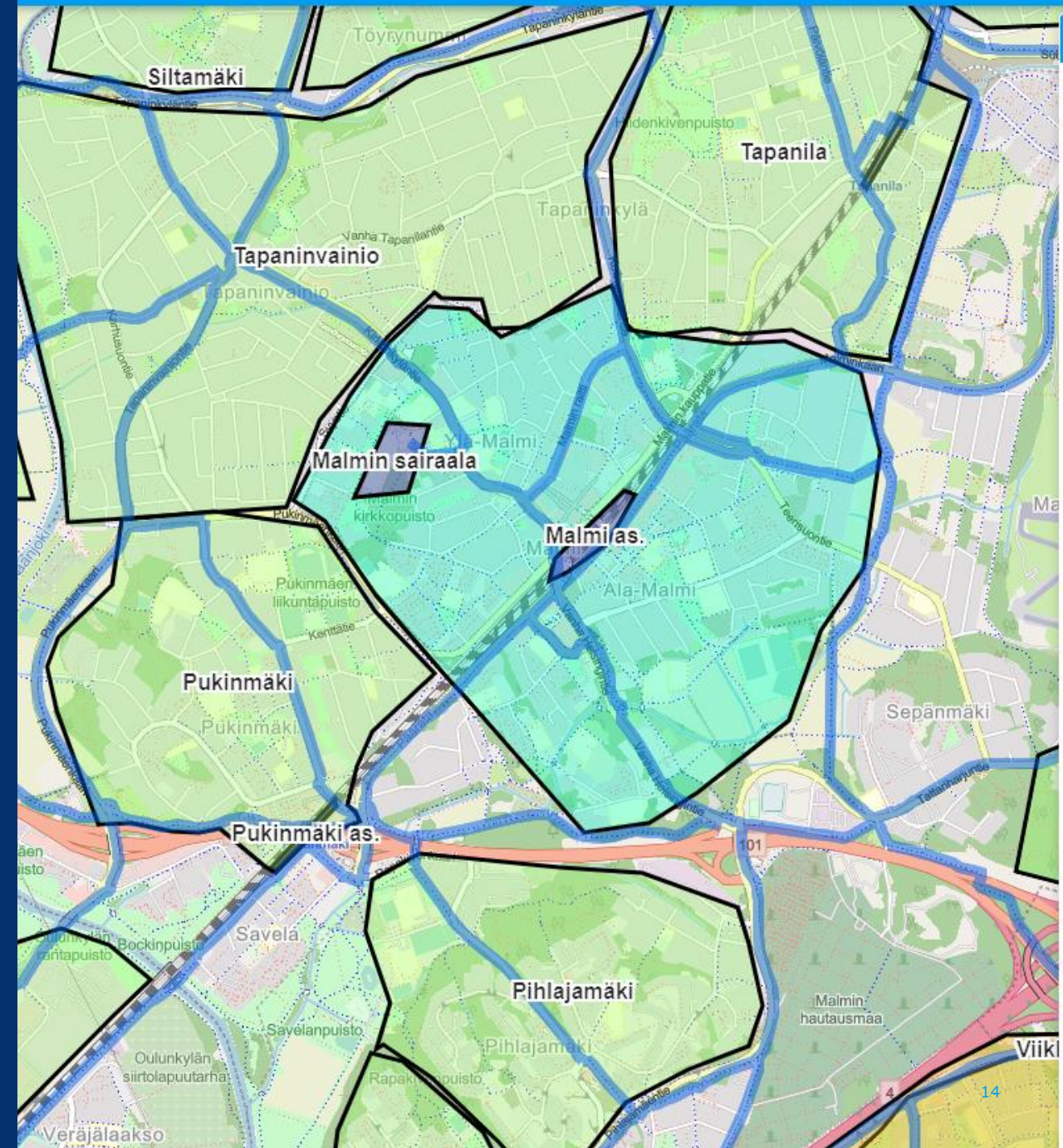
- ☒ Suuntapisteen
- ☒ Suuntanuolet
- ☒ Solmupisteet
- ☒ Nollapisteen
- ☐ Solmupisteet_Eurovelo10
- ☐ Baanat ja muut tunnukselliset reitit
- ☒ Kaikki reitit
- ☐ Reitti_Eurovelo10
- ☒ Kohteet

The ITS part...



The signposter

- Written in Python script, used through a [Jupyter notebook](#)
- Creation of knot and direction points based on the cycling network
- Assigning destinations to direction points
- Computing distances to direction points
- Principles of guidance can be adjusted by changing signposter's parameters.
- Planning at 80/20 principle
- Outputs are .shp files



The benefits of the Signposter

- Significant time-savings in (boring) routine parts of work
- Higher quality of the output, without errors due to manual work.
- Warnings about potential discontinuity.
- All data can be also manually fixed (and prevent overwrite)
- Easy update when routes are changing:
 - run script for calculating new distances and show changes on map









More info

Niko Palo

niko.palo@ramboll.fi



c.ramboll.com/cycling

RAMBOLL

Bright ideas.
Sustainable change.

